

## **MK 19 GMG    Ref: FM 3-22.27 & DA PAM 350-38 Para. 5-6i.**

1. 80% of soldiers assigned MK19 GMG must Zero and Qualify IAW the tables and standards listed in FM 3-22.27 every 12 months.
2. Day Qualification is Table II from FM 3-22.27
3. Soldiers assigned AN/PEQ-2A or AN/PAS-13 HTWS will fire Night Qualification
4. Night Qualification is Table IV from FM 3-22.27
5. There is no STRAC allocation for HE Fire of MK19 GMG.
6. Range firing includes zeroing procedures, observation and adjustment for fire, instructional firing, and qualification firing.

### **ZEROING PROCEDURES**

Zeroing procedures are crucial for hitting targets at ranges of 600 meters or more.

It is strongly recommended that a target at 400 meters be used to zero.

Loosen the range plate screw. Move the range plate to the midpoint between the two studs. Tighten the range plate screw.

Move the rear sight slide to the meter mark that represents the distance to the target.

For example, move to the 400-meter mark to zero on a target known to be 400 meters away.

Set the windage knob at the zero index line.

Align the sights on the base of the target using the T&E mechanism.

Fire a single round and spot the impact of the round. If it is on the target, fire another short burst to confirm the zero.

If the impact of the round is short or over, adjust the elevation knob.

If the round is to the right or left, adjust the windage knob.

Turn the windage knob clockwise to adjust to the right

; turn the windage knob counterclockwise to adjust to the left.

Once the zero is completed, align the range plate scale at the exact range of the target used to zero, and tighten it.

Zeroing the gun, the first task in each table, is scored as a GO/NO GO. Giving a score for the zero emphasizes the importance of a proper zero to effectively engage targets at 600 meters and beyond. However, if the gunner fails to zero within four rounds, he is removed from the line and given additional training before attempting the table again. This step reduces the waste of ammunition.

### **SCORING**

On point target engagements (lightly armored vehicle targets such as BRDMs, threat scout cars, etc.), the gunner receives a GO if he meets or exceeds the engagement standard of one or two rounds hitting the target.

If area targets are included (infantry squads, RPG teams, etc.), the gunner receives a GO when at least the number of rounds stated in the engagement standard for that task (1 or 2) impact within ten meters of the area target and thus suppresses it.

**Grading Equipment.** During the day, the grader will need a set of binoculars. At night equipment will vary according to the type of range being used. With an impact range with hull targets, the grader will need a NVD (examples, the AN/PVS-14,7B with the 3X magnifier, the AN/TAS-4, or the AN/PAS-13 [heavy]) to observe the strike of the round.

The grader also needs the order in which targets are engaged and a means to provide the gunner with the range to the target for that particular firing point. The grader must be able to identify which target is to be engaged by using, for example, a range card including a diagram of the range with targets numbered and ranges listed.

**Start and End Time.** Time will start when the target is exposed and the grader has provided the target range (the graders will provide all information before the target is exposed). If hull targets are used and exposed at all times, then the time will start once the grader has told the gunner which target to engage and provided the range to the target. Time ends when the time indicated for that task expires or the target has been successfully engaged.

**Ammunition.** Ammunition is broken down by task. The assistant gunner places each belt in its order of use. The number of rounds authorized for each task will be the number of rounds per belt.

## **INDIVIDUAL GUNNER EXERCISES AND QUALIFICATION**

These tables are recommended tables for the infantry MK 19 gunner and crew.

If the gunner fails to zero within four rounds, he is removed from the line and given additional training before attempting the table again. Gunners will only fire one day practice qualification and one night practice qualification.

## **DAY TRANSITION FIRING**

### **Engagement 1, Field Zero: 400-Meter Hull Target**

The assistant gunner loads the 4-round belt of ammunition, the gunner fires a single round at the 400-meter Hull target.

The gunner repeats with the remaining rounds making sight adjustments per Zeroing instructions listed above.

If the gunner is unable to zero within 4 rounds, he is removed from the firing line and given remedial training.

### **Engagements 2 through 8 are initiated by individual fire commands.**

The assistant gunner is issued 58 rounds broken into the correct number of rounds for each engagement and loads as required.

The gunner loads the gun, observes his lane, and fires as the targets are designated. If he hits the target with the first burst, he may continue to fire until the allotted ammunition is expended

For each engagement, the gunner scans the sector, acquires the target, sets his sights and fires until the target is hit or he runs out of ammunition.

The 600- and 800-meter targets may be either Point (Hull) or Area (Troop) targets.

**Engagement 2:** 1,100-Meter Point (Hull) Target/ 8 round belt. A 1,100-meter Point (Hull) target is exposed for 2 minutes. Gunner must score 2 hits of 8 rounds fired to receive a "GO".

**Engagement 3:** 1,500-Meter Area (Troops) target/ 10 round belt. A 1,500-meter Area (Troops) target is exposed for 3 minutes. Gunner must score 2 hits of 10 rounds fired to receive a "GO".

**Engagement 4:** 600-Meter Point (Hull) target/ 6 round belt. A 600-meter Point (Hull) target is exposed for 1.5 minutes. Gunner must score 2 hits of

6 rounds fired to receive a "GO".

**Engagement 5:** 800-Meter Point (Hull) target/ 6 round belt. A 800-meter Point (Hull)target is exposed for 1.5 minutes.Gunner must score 2 hits of 6 rounds fired to receive a "GO".

**Engagement 6:** 400-Meter Point (Hull) target/ 4 round belt. A 400-meter Point (Hull) target is exposed for 1 minute.Gunner must score 2 hits of 4 rounds fired to receive a "GO".

**Engagement 7:** 1,100-Meter Point (Hull) and 600-Meter Area (Troops)/ 10 round belt. Both 1,100-meter Point (Hull) and 600-meter Area (Troops)targets are exposed for 3.5 minutes. Gunner must score 1 hit on each target to receive a "GO".

**Engagement 8:** 800-Meter Area (Troops) and 1,500-Meter Area (Troops)/ 14 round belt. Both 800-meter Area (Troops) and 1,500-meter Area (Troops) targets are exposed for 4 minutes. Gunner must score 1 hit on each target to receive a "GO".

### **SCORING**

10 Hits- EXPERT

9 Hits- SHARPSHOOTER

8-7 Hits- MARKSMAN

6 or less Hits- UNQUALIFIED

## **NIGHT TRANSITION FIRING**

Units should select the practice and qualification based on the light conditions, type of targets available, and type of NVDs used.

**Table II (DA 7519-R Scorecard) contains the tables for night practice and night qualification for hull targets using the AN/PEQ-2A, AN/PAS-13, or the AN/TVS-5 NVDs.**

### **Engagement 1, Field Zero: 400-Meter Hull Target**

The assistant gunner loads the 4-round belt of ammunition, the gunner fires a single round at the 400-meter Hull target.

The gunner repeats with the remaining rounds making sight adjustments per Zeroing instructions listed above.

If the gunner is unable to zero within 4 rounds, he is removed from the firing line and given remedial training.

### **Engagements 2 through 8 are initiated by individual fire commands.**

The assistant gunner is issued 58 rounds broken into the correct number of rounds for each engagement and loads as required.

The gunner loads the gun, observes his lane, and fires as the targets are designated. If he hits the target with the first burst,

he may continue to fire until the allotted ammunition is expended

For each engagement, the gunner scans the sector, acquires the target, sets his sights and fires

until the target is hit or he runs out of ammunition.

The 600- and 800-meter targets may be either Point (Hull) or Area (Troop) targets.

**Engagement 2:** 1,100-Meter Point (Hull) Target/ 8 round belt. A 1,100-meter Point (Hull) target is exposed for 2 minutes. Gunner must score 2 hits of 8 rounds fired to receive a "GO".

**Engagement 3:** 1,500-Meter Area (Troops) target/ 10 round belt. A 1,500-meter Area (Troops) target is exposed for 3 minutes. Gunner must score 2 hits of 10 rounds fired to receive a "GO".

**Engagement 4:** 600-Meter Point (Hull) target/ 6 round belt. A 600-meter Point (Hull) target is exposed for 1.5 minutes. Gunner must score 2 hits of 6 rounds fired to receive a "GO".

**Engagement 5:** 800-Meter Point (Hull) target/ 6 round belt. A 800-meter Point (Hull) target is exposed for 1.5 minutes. Gunner must score 2 hits of 6 rounds fired to receive a "GO".

**Engagement 6:** 400-Meter Point (Hull) target/ 4 round belt. A 400-meter Point (Hull) target is exposed for 1 minute. Gunner must score 2 hits of 4 rounds fired to receive a "GO".

**Engagement 7:** 1,100-Meter Point (Hull) and 600-Meter Area (Troops)/ 10 round belt. Both 1,100-meter Point (Hull) and 600-meter Area (Troops) targets are exposed for 3.5 minutes. Gunner must score 1 hit on each target to receive a "GO".

**Engagement 8:** 800-Meter Area (Troops) and 1,500-Meter Area (Troops)/ 14 round belt. Both 800-meter Area (Troops) and 1,500-meter Area (Troops) targets are exposed for 4 minutes. Gunner must score 1 hit on each target to receive a "GO".

## **SCORING**

10 Hits- EXPERT

9 Hits- SHARPSHOOTER

8-7 Hits- MARKSMAN

6 or less Hits- UNQUALIFIED

**Table IV (DA 7521-R Scorecard) contains the tables for night practice and night qualification with pop-up targets or hull targets without using NVDs.**

**Engagement 1, Field Zero: 400-Meter Hull Target**

The assistant gunner loads the 4-round belt of ammunition, the gunner fires a single round at the 400-meter Hull target.

The gunner repeats with the remaining rounds making sight adjustments per Zeroing instructions listed above.

If the gunner is unable to zero within 4 rounds, he is removed from the firing line and given remedial training.

**Engagements 2 through 8 are initiated by individual fire commands.**

The assistant gunner is issued 40 rounds broken into the correct number of rounds for each engagement and loads as required.

The gunner loads the gun, observes his lane, and fires as the targets are designated. If he hits the target with the first burst, he may continue to fire until the allotted ammunition is expended

For each engagement, the gunner scans the sector, acquires the target, sets his sights and fires until the target is hit or he runs out of ammunition.

The 600- and 800-meter targets may be either Point (Hull) or Area (Troop) targets.

**Engagement 2:** 1,100-Meter Point (Hull) Target/ 8 round belt. A 1,100-meter Point (Hull) target is exposed for 2 minutes. Gunner must score 2 hits of 8 rounds fired to receive a "GO".

**Engagement 3:** 1,500-Meter Area (Troops) target/ 10 round belt. A 1,500-meter Area (Troops) target is exposed for 3 minutes. Gunner must score 2 hits of 10 rounds fired to receive a "GO".

**Engagement 4:** 600-Meter Point (Hull) target/ 6 round belt. A 600-meter Point (Hull) target is exposed for 1.5 minutes. Gunner must score 2 hits of 6 rounds fired to receive a "GO".

**Engagement 5:** 800-Meter Point (Hull) target/ 6 round belt. A 800-meter Point (Hull) target is exposed for 1.5 minutes. Gunner must score 2 hits of 6 rounds fired to receive a "GO".

**Engagement 6:** 400-Meter Point (Hull) target/ 4 round belt. A 400-meter Point (Hull) target is exposed for 1 minute. Gunner must score 2 hits of 4 rounds fired to receive a "GO".

**Engagement 7:** 1,100-Meter Point (Hull) and 600-Meter Area (Troops)/ 10 round belt. Both 1,100-meter Point (Hull) and 600-meter Area (Troops) targets are exposed for 3.5 minutes. Gunner must score 1 hit on each target to receive a "GO".

**Engagement 8:** 800-Meter Area (Troops) and 1,500-Meter Area (Troops)/ 14 round belt. Both 800-meter Area (Troops) and 1,500-meter Area

**SCORING**

8 Hits- EXPERT

7 Hits- SHARPSHOOTER

6 Hits- MARKSMAN

5 or less Hits- UNQUALIFIED